

DOCUMENT RESUME

ED 377 150

SP 035 546

AUTHOR Downing, Agnes
TITLE An Investigation of the Advance Organizer Theory as an Effective Teaching Model.
PUB DATE Jul 94
NOTE 21p.; Paper presented at the Annual Meeting of the Australian Teacher Education Association (24th, Brisbane, Queensland, Australia, July 3-6, 1994).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Descriptive (141) -- Guides - Classroom Use - Teaching Guides (For Teacher) (052)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Advance Organizers; Cognitive Structures; *Conventional Instruction; Discussion (Teaching Technique); Elementary Secondary Education; Foreign Countries; Home Economics; *Learning Theories; *Lecture Method; *Teaching Models
IDENTIFIERS Australia; *Ausubel (David P)

ABSTRACT

This paper advocates for the improvement of presentational methods of teaching and expository learning, based on David Ausubel's theory of Meaningful Verbal Learning and its derivative, the Advance Organizer Model of Teaching. This approach to teaching enables teachers to convey large amounts of information as meaningfully and efficiently as possible, while allowing for student acquisition and retention of that information. The Advance Organizer Model provides teachers with a method for improving their presentations and enhancing students' abilities to learn from them. Use of the model is illustrated with a lesson for Year 9 Home Economics students in Australia on the food and nutritional practices of people from various cultures. Planning and preparation of the lesson involved creating a knowledge hierarchy, observing the learners and determining the learning task, and developing an expository organizer to help students relate to new data. The lesson involved three phases: presentation of the advance organizer; presentation of the learning material or task; and strengthening cognitive organization, to anchor the material in the student's existing cognitive structure. The script of an audiotaped presentation of the lesson is presented and critically analyzed. (Contains 11 references.) (JDD)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

AN INVESTIGATION OF THE ADVANCE ORGANIZER THEORY AS AN EFFECTIVE TEACHING MODEL

PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

A. Downing

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC).

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☐ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

Dr Agnes Downing
Lecturer in Education
Central Queensland University
Rockhampton

ABSTRACT

Many educational theorists and social critics are challenging the validity of presentational methods of teaching and finding fault with passive expository learning. This paper will take a contrary stance to these approaches and advocate for the improvement of such methods and directly address the goals of learning and mastering subject matter by attending simultaneously to learning, teaching and curriculum. The primary focus of the paper will be to explain how learning occurs and to make recommendations for selecting, organising and presenting new information to be learned.

- A. CRITICAL DISCUSSION OF THE ADVANCE ORGANIZER MODEL**
INTRODUCTION
FOCUS ON AUSUBEL'S THEORY
LEARNING TYPES
ORGANIZATION OF KNOWLEDGE
OVERALL PURPOSE
- B. TEACHING ILLUSTRATION OF THE ORGANIZER MODEL**
SCENARIO
ANALYSIS OF THE PLANNING PREPARATION AND PRESENTATION
EDUCATIONAL OBJECTIVES
LESSON 1
PHASE 1 - PRESENTATION OF THE ADVANCE ORGANIZER MODEL
PHASE 2- PRESENTATION OF LEARNING TASK OR MATERIAL
PHASE 3 - STRENGTHENING COGNITIVE ORGANIZER
LESSONS 2 - 6
SUMMARY
- C. CRITICAL ANALYSIS OF THE TEACHING OF THE MODEL**
PHASE 1 - PRESENTATION OF THE ORGANIZER
PHASE 2 - PRESENTATION OF THE LEARNING MATERIAL/TASK
PHASE 3 - STRENGTHENING COGNITIVE ORGANIZATION
- D. ADVANTAGES/DISADVANTAGES FOR WIDER APPLICATION**
SYNTAX
SOCIAL SYSTEM
PRINCIPLES OF REACTION
SUPPORT SYSTEM
INSTRUCTIONAL AND NURTURANT EFFECTS
IMPLICATIONS

A. CRITICAL DISCUSSION OF ORGANIZER MODEL

INTRODUCTION

At a time when many educational theorists and social critics are challenging the validity of presentational methods of teaching and finding fault with the passiveness of expository learning, David Ausubel, in contrast to these approaches advocates the improvement of such methods and directly addresses the goal of learning and mastering subject matter by attending simultaneously to learning, teaching and curriculum. (Joyce and Weil (1986:71). How this learning takes place is embodied in his theory of **Meaningful Verbal Learning**. This theory and its derivative, the **Advance Organizer Model of Teaching** proposed by Joyce and Weil (1986:71), is unusual in that it not only explains how learning occurs but also provides recommendations for selecting, organizing and presenting the new information to be learned. The primary concern of the model, as Ausubel (1963) sees it, is to help teachers convey large amounts of information as meaningfully and efficiently as possible.

FOCUS OF AUSUBEL'S THEORY

As Ausubel and Robinson (1969:50) point out, a primary assumption which is central to the theory is that the most important factor influencing learning is the quantity, clarity and organization of the learner's present knowledge. This present knowledge, they assert, which consists of the facts, concepts, propositions, theories and raw perceptual data that the learner has available to him/her at any point in time, is referred to as his/her cognitive structure. The second important focus of Ausubel's theory is the nature of the material to be learned. According to Ausubel (1963), as Joyce and Weil (1986:72) point out, whether material is meaningful depends on the learner and the material, not the method of presentation - another widely held belief. It is Ausubel's (1963) belief, that before new material can be presented effectively, the student's cognitive structure should be strengthened, thereby facilitating his/her acquisition and retention of new information which is one of the primary goals of the Advance Organizer model. The fact is, as Ausubel and Robinson (1969:52) believe, if the learner is presented with a new concept or proposition, for example, "equilateral triangle" and has already encountered and can recognize and define the general concept of "triangle", the item to be learned is merely a specific instance of something which he/she already knows. In this case, he/she is able to relate the new item to his/her existing knowledge and therefore make sense of it. In other words, Ausubel (1969:52) posits, "meaningful learning takes place when an idea is related in some "sensible" fashion to ideas that the learner already possesses." This is central to his work.

LEARNING TYPES

However, according to Ausubel and Robinson (1969:52), the kind of relatability that leads to meaningful learning must possess two particular qualities: substantiveness, meaning that the relationship is not altered if a different but equivalent form of word is used and non-arbitrariness; that is, the relationship between the new item and relevant items in cognitive structure is the relationship of specific instance to general case. These qualities, they believe,

invest the material to be learned with what they call logical meaningfulness. Although this is clearly a property of the material to be learned, they assert, it is not sufficient to guarantee that it will be meaningful to the learner. Meaningful learning, they believe, will only occur if the learner possesses relevant ideas to which to relate the materials, and has the intent to relate these ideas to cognitive structure in a nonarbitrary and substantial fashion.

Regarding the issue of Rote learning, it is Ausubel's (1969:53) belief that the precise learning of facts is essential for certain tasks; however, he argues that learning will be increasingly rote only to the extent that:

- (a) the learning material lacks logical meaningfulness,
- (b) the learner lacks relevant ideas in his/her own cognitive structure and
- (c) the individual lacks the intent (meaningful learning set).

Any one of these conditions by itself, he claims, will produce learning that is relatively rote.

Finally, Ausubel (1963) argues that, contrary to popular belief, the learner's role in reception learning is an active rather than a passive one. He assumes that for meaningful verbal learning to occur, the learner must play an active role as he/she relates the new material to existing knowledge, judging which concept or proposition to catalogue the new knowledge under. However, he points out that the teaching model for reception learning must be designed to facilitate these active mental operations, as they do not occur automatically.

ORGANIZATION OF KNOWLEDGE

According to Ausubel (1963) cited in Joyce and Weil (1986:73), there is a parallel between the way subject matter is organized and the way people organize knowledge in their minds. He expresses the view that each of the academic disciplines has a structure of concepts or propositions, organized hierarchically, that can be identified and taught to students. These structural concepts then become an information-processing system for the students, thus enabling them to make sense of large amounts of data. Ausubel (1963) believes that the mind, like the disciplines is a hierarchically organized set of ideas that provides anchors for information and ideas and serves as a storehouse for them. He maintains that the new ideas can be usefully learned and retained only to the extent that they can be related to already available concepts or propositions that provide ideational anchors. If the new material conflicts too strongly with the existing cognitive structure, or is so unrelated that no linkage is provided, he asserts the information or ideas may not be incorporated or retained. To prevent this from occurring, as Joyce and Weil (1986:76) point out, the teacher must organize a sequence of knowledge and present it in such a way that the ideational anchors are provided. In addition, they assert, the learner must actively reflect on the new materials, think through the linkages, reconcile differences with existing information and note similarities.

OVERALL PURPOSE

It is the purpose of the Advance Organizer Model of teaching to appropriate these ideational anchors which will help strengthen the students' cognitive structure and enhance retention of new information. As Bruner (1960), cited in Clark (1968:72), states, "Knowledge which one

has acquired without sufficient structure to tie it together is knowledge that is likely to be forgotten."

B. TEACHING ILLUSTRATION OF THE ORGANIZER MODEL

(i) SCENARIO

The Advance Organizer Model was used with a class of Year 9 Home Economics students. As students began a new area of learning in their second semester unit on "Food and Nutrition", the decision was made to take advantage of this situation and develop a model that would be most beneficial to the students and to myself, at this point in time. As this was the final area to be covered in this unit, the advance organizer model would help the students to relate the new data to their existing knowledge base, thus providing a medium for a more meaningful learning experience. The model would also help me in organizing lessons for the rest of the semester. In this example, the learning material is in the form of printed handouts on food in several different cultures. The learning task for the students is to remember the central ideas which include the foods available, staple foods, types of food eaten, preparation, presentation and meal patterns. The concept of "food habits" is used to organize the factual information about food in the different culture groups.

(ii) ANALYSIS OF THE PLANNING, PREPARATION AND PRESENTATION

The planning, preparation and presentation that follows is derived from Weil and Joyce's (1978:256-257) Planning Guide, based on Ausubel's (1963) ideas embodied in his Theory of Meaningful Verbal Learning. The first step in planning the Advance Organizer lessons was to create a knowledge hierarchy in order to diagnose the learner's cognitive structure, determine the learning task and identify the Advance Organizer. It is from this knowledge hierarchy that the concepts which will be potentially meaningful to the students will be selected. (Weil and Joyce (1978:251)).

The significant feature of forming a knowledge hierarchy, as Weil and Joyce (1978:251) point out, is the identification of the major concepts and propositions and the progressive differentiation and integrative reconciliation among them. What this means is, that the most general ideas of the discipline are presented first, followed by a gradual increase in detail and specificity, with new ideas being consciously related to previously learned content. (Joyce and Weil (1986:76)).

The Home Economics Work Program indicated that within the semester topic of "Food and Nutrition", knowledge of "Food Habits from Australia and Other Cultures" should be imparted to students. This broad concept was broken down to "Food Habits" which in turn was broken down to two subordinate concepts of "Australia" and "Other Cultures". The sub-concept "Other Cultures" was differentiated into the specific cultures of Japan, China, France, Germany, Italy, Spain and Mexico which in turn were broken down to the specific and more concrete concepts of food available, staple foods, types of food eaten, preparation, presentation and meal patterns. The sub-concept "Australia" was sub-divided into the same concrete concepts. (See diagram Appendix A).

As Weil and Joyce (1978:251) point out, there is really no set way to construct a knowledge hierarchy. The only requirement is that the most inclusive concept is at the top of the hierarchy and that the remaining concepts become less inclusive at each level. The concepts to be taught have to be analysed, and in the process of analysis, as Eggen et al. (1979:274) point out, subordinate, co-ordinate and superordinate relationships are established which can then be used to organize the content as well as the lesson. To ensure that the concepts will be meaningful to the students, the content to be learned is organized so that it can be related to what the student already knows. In this particular framework, as the students have already studied food in Australia, they should be familiar with the concepts to be learned. (See diagram Appendix A).

Having developed the knowledge hierarchy, the next step was to observe the learner and determine the learning task. This was accomplished by identifying the existing and potentially meaningful concepts presently in the learner's cognitive structure. Following analysis of the learners' cognitive structure, the decision was made to leave the Advance Organizer presentation on the potentially meaningful concept of "Food Habits". It was considered that this concept could be drawn upon recurrently as students study each different culture, thus expanding their knowledge about food.

As the students were unfamiliar with the material to be presented, an expository organizer was selected to help them relate to the new data. The Advance Organizer was in the form of a generalisation "at a much higher level of abstraction and generality than the learning material itself". (Weil and Joyce (1978:221)). The generalization selected was "Food Habits include the ideas, beliefs, attitudes and practices related to the food available." The learning material was selected from the knowledge hierarchy and the decision was made to present the task to students in the form of a handout to be read and discussed, illustrations to observe and a video to view.

EDUCATIONAL OBJECTIVES

Four specific behavioural objectives were selected. At the end of the lesson/lessons, students should be able to:

- Identify the various foods and dishes eaten by people of different cultures,
- Identify the customs and traditions related to the food practices of various cultures,
- Identify specific cultures from their food related practices and
- Compare and/or contrast the food related practices of the various cultures.

LESSON 1

PHASE 1 - PRESENTATION OF THE ADVANCE ORGANIZER

This phase consists of three activities:

- clarifying the aims of the lesson,
- presenting the advance organizer and
- prompting awareness of relevant knowledge and experience, (Joyce and Weil (1986:79)).

The lesson was introduced by making a statement about the learning material to be covered for this lesson and the ones to follow. The students were told that the learning task would involve reading and discussing information concerning food in a number of different cultures, the purpose being to become familiar with the food and related practices of the people living in those cultures. Reference was made to the material previously covered in the "Food and Nutrition" unit in order to provide students with the "big picture" and to link what students already knew to the new material. To illustrate this point, a diagram was drawn on the blackboard prior to the lesson (knowledge hierarchy).

The expository advance organizer was introduced in the form of a generalization concerning the concept "Food Habits" taken from the knowledge hierarchy. The essential features of the concept were pointed out, explained and examples were given to help clarify the ideas of the concept and relate it to the material it was organizing. In order to develop an integrative cognitive structure, an awareness of the learners' existing knowledge was prompted by relating the concept to ideas previously experienced by the learners. For example, students were asked to link food habits with ordinary everyday habits.

PHASE 2 - PRESENTATION OF LEARNING TASK OR MATERIAL

As Weil and Joyce (1978:213) point out, this phase requires several tasks to be accomplished in addition to the presentation of the new learning material. Some of these tasks involve general teaching skills that enhance reception learning - providing a logical order to the learning material, maintaining attention and making organization explicit. Students were presented with the learning materials, a handout on food in Japan. The information was organized before the lesson and students were made aware of the major areas to look for. These were included on the blackboard diagram and reinforced verbally before the learning material was presented. (Handout - see Appendix B). To maintain student attention, the learning tasks were varied. They included listening to a brief verbal presentation, observing blackboard diagram, reading information from handout and responding to teacher questions.

PHASE 3 - STRENGTHENING COGNITIVE ORGANIZATION

The purpose of this phase, as Joyce and Weil (1986:81) suggest, is to anchor the new learning material in the student's existing cognitive structure. Ausubel (1968) identifies four activities to help accomplish this:

- promoting integrative reconciliation,
- promoting active reception learning,
- eliciting a critical approach to subject matter, and
- clarification.

This phase was introduced by asking students to summarize the major attributes of the material they had read in order to facilitate integrative reconciliation. Students were encouraged to verbalize the essence of the new material by responding to a series of questions posed by the teacher. As a result of this questioning, students were able to recognize some of the assumptions and inferences that had been made in the learning material. For example, factors such as those influencing the availability of food in Japan were elicited from students. Students were shown illustrations of Japanese foods and dishes and were asked to compare or contrast these with Australian foods. Presentation of a short video at the conclusion of the lesson was used to help clarify and consolidate the new learning material.

LESSONS 2 - 6

In the series of lessons that followed lesson 1, the Advance Organizer "food habits" were used as the basis, and as each different culture was introduced it was added to the existing cognitive structure on the knowledge hierarchy. Although the learning task was the same as that described in the previous lesson, the methods used to present the learning material were varied in order to avoid monotony. For example, the second lesson on food in China required students to view a twenty minute film followed by discussion and completion of worksheets.

- (iii) The introductory portion of the lesson was selected for the audio-tape as it includes the essential factor of the model - the Advance Organizer and all three phases of the model are represented in the first ten minutes of this particular lesson.

SUMMARY

To develop this model successfully, it would seem that a thorough understanding of each of the three phases is essential as each phase has its own particular significance in terms of helping the teacher to convey large amounts of information as meaningfully and efficiently as possible, while at the same time allowing for student acquisition and retention of that information.

- T. Today and for the next few weeks we're going to look at some material concerning foods from other countries. We'll look at countries like Japan, China, France, Germany, Italy, Spain and Mexico and that will probably take us through to the end of the term.

We're going to read the information from the handouts and then we'll discuss it as we go. We want to be as clear as we can at the end of the lessons about the food and the related practices of people from the various cultures.

Since we've begun this unit on Food and Nutrition, we've looked at many of the basic rules of good nutrition, we've learnt how to plan, prepare and present food in a typically Australian way and now we're going to look at the way things are done in other countries in relation to food.

What I'm going to do first is to give you some ideas that I think will help you read the information and understand what it's all about.

Let's begin by looking at the term, "Food Habits".

Look at the definition I've written on the board. Would you like to read that please, Lisa?

- S. "Food Habits include the ideas, beliefs, attitudes and practices related to the food available."

- T. We are all aware of the fact that food is a basic necessity of life for all people of the world. Through the ages, each country, including our own has developed its own way of selecting food, of preparing it, presenting it and eating it, based on the foods available in that country and the customs and traditions of its people.

For example, certain foods like meat are readily available to us in Australia, hence, meat forms a large part of the diet of all Australians. Also, it is our practice to cook meat before we eat it, whereas

PHASE 1
Clarifying aims.

Students given the "big picture".

Linking the known to the unknown.

Advance Organizer introduced.

Prompting awareness of relevant knowledge.

Identifying, defining attributes.

Giving examples.

in some cultures, some meats are eaten raw. How would you feel if you were presented with a plate of raw meat to eat?

S. I wouldn't eat it.

S. I would.

S. Yuk!

S. I'd eat raw meat.

S. It'd have all blood on it.

T. All right, why do you think you would feel like that about raw meat?

S. Because we're not used to it.

Identifying, defining attributes.

T. Exactly. It hasn't been your practice or habit to eat raw meat, has it?

A habit, in fact, is something that we develop very early in our lives. It's something that we believe is the right way to do things.

Where do these habits come from? How do we learn them?

S. Like, if we're little our parents give us our food and might not give us another food and as we get older they might try to teach us to eat this food but we don't want to eat it because of a habit. We didn't eat it when we were young.

T. Right. So you get used to the sorts of things you eat from when you're very young, don't you?

S. Yes.

T. Let me give you an example of just an ordinary everyday habit. You might have a habit of cleaning your teeth every morning before breakfast; somebody else's habit might be to clean their teeth after breakfast. It just depends on what you've learnt, what you've been taught by your parents, doesn't it?

Giving examples.

Relating concept to ideas previously experienced.

S. Yes.

S. Yeah.

T. We're probably all aware of our own food habits, but we probably don't know very much about the

Providing context.

food habits from other cultures or why these habits have developed over the years.

- T. Now I'm going to give you some material to read about food in Japan and later on I have a video to show you.

What I want you to think about while you read it is that if we look at the food habits of the people and the foods they have available to them, we can learn a lot about the types of food they eat, their eating habits and practices and the methods they use to prepare, present and eat their foods.

Time out for Reading.

PHASE 2

Presentation of Learning Material.

Reading information from handout.

- T. Now let's look at what you've read. Rene, would you summarise what you read?

S. Japan and what they eat and how they eat it.

T. Yes.

- S. It was telling us about habits and cultures, what they've been taught, their eating habits, etc.

PHASE 3

Promoting integrative reconciliation. Summarizing major attributes of material.

- T. Yes, that's good. Anyone got any other ideas?

S. It explains the life style of the people; a lot of rice is grown in the country and that's part of their main diet.

- T. Right. In other words, that's the food that they eat most commonly. We call that the "something" food of a nation. Anyone hear of "staple" food?

S. Yes.

- T. So rice then would be the staple food of Japan, wouldn't it? All right - well, generally speaking, what the information was all about was the different foods available in Japan and the customs and the beliefs and the traditions that determine what the people eat, how they prepare and present it and finally in some cases how they eat it.

Repeating precise definition.

Do the people of Japan have a wide variety of foods available to them in terms of what they are able to produce themselves do you think? Byron.

Eliciting a critical approach.

S. No.

T. Why not?

S. Because there's such a large population.

T. That's one reason. What else?

S. And the land isn't really fit to grow anything on.

T. Right. The land is unsuitable for cultivation.

Why would that be, Antoinette?

Why do you think they can't grow too much on the land itself in Japan?

S. Because it's an Island.

T. Not so much because it's an Island, but

S. Mountainous.

T. Right. Because it's mountainous.

Japan is obviously at a disadvantage geographically in terms of its landscape, but it does have the advantage of being an Island.

Can anyone tell me why?

Why would it be an advantage, the fact that Japan is an Island, in terms of food? Byron.

S. Because they can import it.

T. Can anyone give me another advantage?

S. They can provide their own seafood.

T. Right. The fact that Japan is surrounded by water accounts for the abundance of fish in the Japanese diet.

Are there any other reasons why fish has been important to the Japanese people over the years?

- S. Protein.
- T. Naturally because of its nutritive value, that's one reason. What other reason? Well. Linking to existing knowledge.
- S. Because there's an abundance of it in the ocean.
- S. Because they can't eat flesh from animals.
- T. Exactly.
- S. They don't believe in eating four footed animals.
- T. And where would they have learnt that from?
- S. From the Buddhist religion.
- T. Right, for many centuries the Japanese have observed the Buddhist religious custom or belief of not eating flesh from 'four-footed animals'. Many Japanese people today do eat meat, but fish still remains a very important part of their diet. Is there anything unusual or different about the way the Japanese serve fish?
- S. They don't cook it.
- S. They eat it raw.
- T. We probably think that that practice is very unusual only because we've been in the habit of eating fish cooked, haven't we? Are there any other unusual foods that the Japanese eat? Food that we wouldn't particularly care to eat: Antoinette? Linking to existing knowledge.
- S. Seaweed.
- T. Seaweed. How would you feel if we dished you up a plate of seaweed?
- S. I wouldn't eat it.
- S. Depends on what it looked like.
- T. Well actually the Japanese people use a lot of seaweed in their cooking ... for that reason their diets are very rarely lacking in the mineral, iodine and therefore the people of Japan very rarely suffer from a disease called Goitre. Remember learning about minerals several months ago? Relating to existing knowledge.
- S. Yes.

- T. We also learnt how important it was to have iodine in your diet.

(End of Tape)

Following this, the students were shown pictures illustrating various foods and dishes eaten by the Japanese people. Special attention was drawn to the decorative and artistic presentation of the foods and students were asked to identify similarities and differences in relation to foods eaten and presented in Australia.

Further food related customs and traditions were discussed briefly, such as cooking methods, eating with chopsticks, kneeling or sitting on the floor to eat meals and the famous Japanese Tea Ceremony.

The lesson concluded with a short video depicting some of the foods and related practices discussed during the lesson. This was used to help clarify and consolidate the information presented earlier.

Eliciting a critical approach.

Clarification.

C. CRITICAL ANALYSIS OF THE TEACHING OF THE MODEL

The following is based on the Teaching Analysis Guide provided by Weil and Joyce (1978:240-241).

PHASE 1 - PRESENTATION OF THE ORGANIZER

- The aims of the presentation were clarified partially, but more attention could have been given to the clarification, use and value of the knowledge hierarchy.
- The advance organizer was an expository one and appeared to be presented thoroughly.
- The organizer presentation thoroughly identified, clarified and explained the essential characteristics of the concept "Food Habits" that served as the organizer.
- Several examples of the organizer were included in the organizer presentation and the terms of the organizer were repeated on many occasions during the presentation.
- Awareness of the relevant knowledge on experience in the learners' backgrounds was prompted on several occasions throughout the presentation.

PHASE 2 - PRESENTATION OF THE LEARNING MATERIAL/TASK

- The learning material was presented fairly thoroughly, but could have been made more explicit by drawing up rough outlines on the blackboard using the headings from the knowledge hierarchy, for example, foods available, staple foods. This was omitted due to the time factor. Perhaps too much was attempted in one lesson.
- Procedures, such as varying the learning methods, were used to maintain student attention and appeared to be quite successful.

PHASE 3 - STRENGTHENING COGNITIVE ORGANIZATION

- Principles of integrative reconciliation appeared to be thoroughly carried out. The essential characteristics of the new learning material were summarized, differences between aspects of the material were established and student answers were repeated, sometimes in a more precise manner.

For example - S. "because we're not used to it"

T. "it hasn't been your practice or habit"

- The teacher promoted active reception learning throughout the presentation by asking questions which required students to verbalize the essence of the material and in some cases, relate the material to their own experience. For example, a habit related to the students' everyday experience was used to help clarify the concept.

- A critical approach to the information was encouraged but this could have been developed more thoroughly had time permitted, particularly as the video lent itself to this type of approach.

- Attempts were made to clarify students' misunderstandings or confusions throughout the presentation and the video at the end of the lesson was particularly useful in accomplishing this.

The investigation thus far pinpoints that as the advance organizer model involves a great deal of interaction between the teacher and the student, more attention needs to be given to student responses and experiences.

D. ADVANTAGES/DISADVANTAGES FOR WIDER APPLICATION

SYNTAX

One of the main advantages of the advance organizer model is that it is designed to assist teachers in conveying large amounts of information to their students in a meaningful and efficient manner. As Joyce and Weil (1986:71) point out, it is Ausubel's (1963) belief that the acquisition of information is a valid, indeed an essential goal of schooling. In my preferred teaching area, this subject requires students to acquire and retain large amounts of information. For this reason, it would be envisaged that the utilization of the Advance Organizer Model would be particularly useful in achieving this goal.

Secondly, as Joyce and Weil (1986:76) propose, the model is especially useful in organizing an extended curriculum sequence through the establishment of a knowledge hierarchy. This enables the teacher to organize and plan over an extended period of time, the advantage being that it shows the superordinate, coordinate and subordinate relationships in the content. As Home Economics is a subject which is basically divided into a number of interrelated units, it would appear that the use of an organizational framework such as that provided by the model would be advantageous to both teacher and student. Bruner (1965) claims that teaching should give pupils an "understanding of the fundamental structure of whatever subjects we choose to teach". Furthermore, he points out that "to learn structure is to learn how things are related".

Another advantage of the model is that through the selection of the Advance Organizer from the knowledge hierarchy, the material to be learnt is related to the existing knowledge and experience of the student, thus providing the opportunity for more meaningful verbal learning to occur. In terms of the disadvantages, the most difficult problem for teachers, as Joyce and Weil (1986:87) point out, surrounds the formulation and selection of the advance organizer. This can be a rather time consuming exercise, but once this task has been accomplished and the learning material organized, planning for future learning tasks is minimized.

SOCIAL SYSTEM

Although the teacher is the centre of activity in the initial stages, the model is advantageous

in that it allows for interaction between students and teacher after the exposition of the Advance Organizer. Students would prefer to be involved in the lesson, rather than be passive onlookers or listeners. As Loughlin (1968), cited in Clark (1968:447), states "one secret of good teaching is to involve pupils". In addition, the responses of the students provide the teacher with some idea of how much the students understand.

PRINCIPLES OF REACTION

Teachers are interested in students' learning and "we know that a major factor determining how well a student learns a particular lesson is its relationship to what he/she already knows", Ausubel (1963) cited in Good and Brophy (1973:303). This model is advantageous in that it allows the teacher to become the facilitator who helps determine the relationship for his/her students. In addition, as Joyce and Weil (1986:83) point out, the students in responding to the teacher are being encouraged to initiate their own questions thus satisfying their own drive for meaning.

SUPPORT SYSTEM

The fact that the model requires the teacher to be well organized in terms of preparation and organization of the learning material is an advantage in itself. Some of the disciplinary problems that some teachers are confronted with in the classroom today are often a result of poorly prepared learning material. This model demands that material must be well-organized for effective presentation. Other support materials such as pictures, charts and audio-visuals are advantageous for use with this model as they assist in maintaining student attention.

INSTRUCTIONAL AND NURTURANT EFFECTS

Perhaps the greatest advantage in including the model in one's teaching repertoire relates to the instructional effects which are outlined by Joyce and Weil (1986:83): Firstly, it allows students to gain knowledge not only in the key areas of a field but also provides them with a perspective on the entire area being studied. In addition, the major concepts or organizers used can be drawn upon recurrently, thus aiding in the expansion of students' knowledge in other areas. Secondly, the knowledge can be shaped to teach the skills of effective reception learning. Critical thinking and cognitive reorganization can be explained to the learners who receive direct instruction in orderly thinking and in the notion of knowledge hierarchies. This will enable students to apply these techniques independently to new learning situations.

With regard to nurturant effects, Ausubel (1969) makes no claims about these. He argues that depth of treatment is attained only by concentration on the cognitive domain while teaching affective factors only in so far as they relate to cognitive outcomes; thus, he asserts, the teacher who is primarily concerned with the shaping of attitudes on the inculation of grounds of teaching values should look elsewhere. Consequently, as Joyce and Weil (1986:87) point out, the only likely nurturant effects are an interest in inquiry and precise habits of thinking.

IMPLICATIONS AND CONCLUSIONS

This investigation of the Advance Organiser Model shows that there is a need for teachers to understand better how learners can be helped in acquiring and retaining information, keeping in mind that it is one of the essential goals of schooling. Through the Advance Organizer Model, as Joyce and Weil (1986:82) point out, Ausubel has provided teachers with a method for improving their presentations and also enhancing students' abilities to learn from them.

BIBLIOGRAPHY

Ausubel, D. P., (1963). The Psychology of Meaningful Verbal Learning, New York: Grune and Stratton Inc. cited in Joyce, B. and Weil, M. (1986) 3rd Edition, Models of teaching, Prentice-Hall International, Inc. Englewood Cliffs, New Jersey.

Ausubel, D.P., (1963). The Psychology of Meaningful Verbal Learning, New York: Grune and Stratton Inc. cited in Good, T. and Brophy, J. (1973), Looking in Classrooms, Harper and Row Publishers: New York.

Ausubel, D.P., (1968). Educational Psychology: A Cognitive View. New York: Holt, Rinehart and Winston cited in Joyce, B. and Weil, M. (1986) 3rd Edition, Models of Teaching, Prentice-Hall International, Inc. Englewood Cliffs, New Jersey.

Ausubel, D.P. and Robinson, F.G. (1969), School Learning: An Introduction to Educational Psychology, Holt, Rinehart and Winston, New York.

Bruner, J.S., (1960) "The Structure of the Disciplines" cited in Clark, L. (1968), (ed) Strategies and Tactics in Secondary School Teaching: A Book of Readings. The Macmillan Company, Collier-Macmillan Limited, London.

Bruner, J.S. (1965) cited in Brady, L. (1985). Models and Methods of Teaching. Prentice-Hall of Australia Pty. Ltd.

Eggen, P.D., Kauchak, D.P. and Harder, R.J. (1979) Strategies for Teachers: Information Processing Models in the Classroom. Prentice-Hall, Englewood Cliffs, New Jersey.

Garrison, K.C. and Magson, R.A. (1972). Educational Psychology: An Integration of Psychology and Educational Practices, Charles E. Merrill Publishing Company, Columbus, Ohio.

Joyce, B. and Weil, M. (1986) Models of Teaching, third edition, Prentice-Hall Int., Inc., Englewood Cliffs, New Jersey.

Loughlin, R.L., "On Student Participation" cited in Clark, L. (1968) (ed) Strategies and Tactics in Secondary School Teaching: A Book of Readings. The Macmillan Company, Collier-Macmillan Limited, London.

Weil, M., and Joyce, B. (1978). Information Processing Models of Teaching: Expanding Your Teaching Repertoire, Prentice-Hall, inc., Englewood Cliffs, New Jersey.